Missouri Department of Natural Resources
Water Protection Program

Documentation that

Fellows Lake
Greene County, Missouri

Is meeting Water Quality Standards

DRAFT

DRAFT Documentation of Meeting Water Quality Standards
For Fellows Lake
Pollutant: Algae


State map showing location of watershed

Name: Fellows Lake

Location: Near Springfield in Greene County, Missouri

Hydrologic Unit Code (HUC): 10290106-050001

Water Body Identification Number (WBID): 7237

Missouri Lake Class: L1[1]

Beneficial Uses:

- Livestock and Wildlife Watering
- Protection of Warm Water Aquatic Life
- Protection of Human Health associated with Fish Consumption
- Whole Body Contact Recreation-Category A
- Boating and Canoeing
- Drinking Water Supply

Size of Impaired Segment: 820 lake acres

Location of Impaired Segment: Dam in NE¼, Section 22, T30N, R21W

Pollutant: Nutrients

Pollutant Source: Agricultural and suburban nonpoint source

TMDL Priority Ranking: Low

1. Background And Water Quality Problems

Fellows Lake is meeting Missouri's Water Quality Standards (WQS) and therefore a TMDL does not need to be written. This document provides the background information and data to substantiate that fact.

It should be noted at the outset that a TMDL has already been written and approved for McDaniel Lake, which is downstream of Fellows Lake. It was approved Feb. 3, 2004 and contains material

[1]Class L1 lakes are lakes used primarily for public drinking water supply. See Missouri Water Quality Standards (WQS) 10 Code of State Regulations (CSR) 20-7.031(1)(F). The WQS can be found at the following uniform resource locator (URL): http://www.dnr.mo.gov/env/wpp/rules/index.html#Chap7

related to Fellows Lake. This document may be accessed at: www.dnr.mo.gov/env/wpp/tmdl/wpc-tmdl-EPA-Appr.htm

Fellows Lake serves as a drinking water supply for the city of Springfield along with McDaniel Lake, Stockton Lake, the James River and Fulbright Spring. The impairment of the lake was originally a taste and odor problem noticeable in the drinking water. However, in the past two decades, there has been only one complaint about the drinking water from Fellows Lake regarding taste and odor. Taste and odor problems can occur at the same time that specific types of blue-green algae, also known as cyanobacteria, reach peak levels in a waterbody. Increased production of cyanobacteria is related primarily to nutrients (phosphorus and nitrogen) in the water, abundant sunlight and warm water temperatures. This is why nutrients are listed as the impairment.

The U.S. Environmental Protection Agency approved a TMDL for McDaniel Lake dealing with this problem (algae/nutrients). Since Fellows Lake is part of the McDaniel Lake watershed, some of the measures being taken in the watershed to improve McDaniel Lake would also benefit Fellows Lake. However, since there has only been one taste and odor event in Fellows Lake and there is no additional data (See Appendix A) showing that it is impaired for nutrients, the department believes a TMDL is not required for this lake. For this reason, the department is requesting that EPA remove this waterbody from the 303(d) list for nutrients.

2. Description of the Applicable Water Quality Standards and Numeric Water Quality Targets

Designated Uses:
The designated uses of Fellows Lake, WBID 7237, are listed on page 1. The lake classifications and designated uses may be found in Missouri's Water Quality Standards (WQS) at 10 CSR20-7.031 (1)(C) and Table G. It should be noted that watering of livestock and swimming are not allowed in Fellows Lake, even though those are designated as uses in the WQS.

Use that is impaired:
Drinking Water Supply

Anti-degradation Policy:
Missouri's Water Quality Standards include the U. S. Environmental Protection Agency (EPA) "three-tiered" approach to anti-degradation, and may be found at 10 CSR 20-7.031(2).

Tier 1 – Protects existing uses and provides the absolute floor of water quality for all waters of the United States. Existing instream water uses are those uses that were attained on or after Nov. 29, 1975, the date of EPA's first Water Quality Standards Regulation, or uses for which existing water quality is suitable unless prevented by physical problems such as substrate or flow.

Tier 2 – Protects the level of water quality necessary to support propagation of fish, shellfish, and wildlife and recreation in and on waters that are currently of higher quality than required to support these uses. Before water quality in Tier 2 waters can be lowered, there must be an antidegradation review consisting of: (1) a finding that it is necessary to accommodate important economical or social development in the area where the waters are located; (2) full satisfaction of all intergovernmental coordination and public participation provisions; and (3) assurance that the

highest statutory and regulatory requirements for point sources and best management practices for nonpoint sources are achieved. Furthermore, water quality may not be lowered to less than the level necessary to fully protect the "fishable/swimmable" uses and other existing uses.

Tier 3 – Protects the quality of outstanding national resources, such as waters of national and state parks, wildlife refuges and waters of exceptional recreational or ecological significance. There may be no new or increased discharges to these waters and no new or increased discharges to tributaries of these waters that would result in lower water quality (with the exception of some limited activities that result in temporary and short-term changes in water quality).

Specific Criteria:
Missouri's Water Quality Standards do not contain criteria for phosphorus or nitrogen. Therefore the impairment of this lake is based on exceedence of the general criteria contained in the WQS found in 10 CSR 20-7.031(3)(A) and (C). Here it states:

- Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses.
- Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses.

The impairment is also based on influencing the specific criteria at 10 CSR 20-7.031(4)(F) on Taste- and Odor-Producing Substances.

3. Calculation of Load Capacity

Load capacity is defined as the maximum pollutant load that a waterbody can assimilate and still attain water quality standards. Since the data show that Fellows Lake is meeting water quality standards, no net reduction in the current condition is required. The present load is the Load Capacity. The Load Allocation and Waste Load Allocation need no net reduction.

4. Margin of Safety (MOS)

A Margin of Safety (MOS) is usually added to a TMDL, if a TMDL is necessary, to account for the uncertainties inherent in the calculations and data gathering. The MOS in this case is implicit because WQS are being met with the present load.

5. Seasonal Variation

There is no seasonal variation associated with this documentation.

6. Monitoring Plans for Fellows Lake

City Utilities of Springfield currently monitors Fellows Lake as part of their source water monitoring program. Below is a list of current sites. These sites are monitored for wide variety of parameters, including total nitrogen, total phosphorus and chlorophyll-a. This monitoring is ongoing and gives a good profile of Fellows Lake.

Table 1. Current City Utilities of Springfield Fellows Lake Sample Sites

Sample Site Identification	
FLL-001	
FLL-115	
FLZ-710	Fellows Lake at or near intake
FLZ-730	Geometric center of the south arm
FLZ-750	Geometric center of the north arm
FLZ-900	At the dam. Samples also taken at this site 7, 13, 23, 35, 47, 63 and 81 feet below the surface.

7. Public Participation

This water quality limited lake is included on the approved 2002 303(d) list for Missouri. The public notice period is from April 14 to May 14, 2006. The department's Water Protection Program developed this documentation. Groups that receive the public notice announcement include the Missouri Clean Water Commission, the Water Quality Coordinating Committee, Springfield City Utilities, the Watershed Committee of the Ozarks, the James River Basin Partnership, Stream Team volunteers in the county (41) and the legislators representing Greene County (10). Also, the notice, the Fellows Lake and McDaniel Lake Information Sheets and this document are posted on the department Web site, making them available to anyone with access to the Web. All comments received and the department's response will be placed in the Fellows Lake docket [file] along with any other documentation.

8. Appendices and List of Documents on File with the Department

Appendix:
Appendix A – Data for Fellows Lake

An administrative record on Fellows Lake has been assembled and is being kept on file with the Missouri Department of Natural Resources. It includes the following:

- McDaniel Lake TMDL, approved Feb. 3, 2004
- Quarterly reports on data collection as outlined in the McDaniel Lake TMDL monitoring section
- Public notice announcement
- Fellows Lake and McDaniel Lake Information Sheets

Appendix A – Data for Fellows Lake

Note: TN = Total Nitrogen in mg/L; TP = Total Phosphorus in mg/L; Secchi = depth of water clarity in meters

Site	Site Name	Year	Month	Day	TN	TP	Secchi
CU7237/0.1	Fellows Lake near Dam	1989	6	13	0.37	0.019	2
CU7237/0.1	Fellows Lake near Dam	1989	7	17	0.29	0.013	2.2
CU7237/0.1	Fellows Lake near Dam	1989	8	22	0.32	0.014	2.4
CU7237/0.1	Fellows Lake near Dam	1990	6	4	0.44	0.023	2.3
CU7237/0.1	Fellows Lake near Dam	1990	7	10	0.42	0.016	2
CU7237/0.1	Fellows Lake near Dam	1990	8	7	0.34	0.016	2.1
CU7237/0.1	Fellows Lake near Dam	1991	4	9		0.021	2.7
CU7237/0.1	Fellows Lake near Dam	1991	4	23		0.028	1.8
CU7237/0.1	Fellows Lake near Dam	1991	5	7		0.038	2
CU7237/0.1	Fellows Lake near Dam	1991	5	21		0.023	3
CU7237/0.1	Fellows Lake near Dam	1991	6	3		0.014	3.2
CU7237/0.1	Fellows Lake near Dam	1991	6	19		0.021	3
CU7237/0.1	Fellows Lake near Dam	1991	7	1		0.018	2.6
CU7237/0.1	Fellows Lake near Dam	1991	7	9		0.017	3.1
CU7237/0.1	Fellows Lake near Dam	1991	7	23		0.012	2.8
CU7237/0.1	Fellows Lake near Dam	1991	7	30		0.017	2.8
CU7237/0.1	Fellows Lake near Dam	1991	8	12		0.018	2
CU7237/0.1	Fellows Lake near Dam	1991	9	10		0.016	2.6
CU7237/0.1	Fellows Lake near Dam	1991	9	25		0.012	2.6
CU7237/0.1	Fellows Lake near Dam	1991	10	8		0.014	3
CU7237/0.1	Fellows Lake near Dam	1991	10	22		0.019	2.6
CU7237/0.1	Fellows Lake near Dam	1991	11	5		0.026	1.3
CU7237/0.1	Fellows Lake near Dam	1991	12	3		0.03	1.8
CU7237/0.1	Fellows Lake near Dam	1991	6	11	0.4	0.016	1.8
CU7237/0.1	Fellows Lake near Dam	1991	7	10	0.37	0.01	2.3
CU7237/0.1	Fellows Lake near Dam	1991	8	6	0.85	0.011	2.2
CU7237/0.1	Fellows Lake near Dam	1992	1	14		0.015	1.9
CU7237/0.1	Fellows Lake near Dam	1992	2	11		0.014	2.8
CU7237/0.1	Fellows Lake near Dam	1992	3	10		0.018	2.3
CU7237/0.1	Fellows Lake near Dam	1992	4	13		0.016	2.4
CU7237/0.1	Fellows Lake near Dam	1992	4	28		0.016	3.5
CU7237/0.1	Fellows Lake near Dam	1992	5	11		0.014	3.3
CU7237/0.1	Fellows Lake near Dam	1992	5	26		0.015	3.1
CU7237/0.1	Fellows Lake near Dam	1992	6	2		0.014	4.2
CU7237/0.1	Fellows Lake near Dam	1992	6	9		0.015	3
CU7237/0.1	Fellows Lake near Dam	1992	6	16		0.011	2.8
CU7237/0.1	Fellows Lake near Dam	1992	6	23		0.015	2.2
CU7237/0.1	Fellows Lake near Dam	1992	7	15		0.015	2.7
CU7237/0.1	Fellows Lake near Dam	1992	7	28		0.015	2.7
CU7237/0.1	Fellows Lake near Dam	1992	8	3		0.014	2.4
CU7237/0.1	Fellows Lake near Dam	1992	8	11		0.016	3
CU7237/0.1	Fellows Lake near Dam	1992	8	18		0.011	4
CU7237/0.1	Fellows Lake near Dam	1992	8	25		0.01	4.1
CU7237/0.1	Fellows Lake near Dam	1992	9	1		0.016	4

CU7237/0.1	Fellows Lake near Dam	1992	9	8		0.008	3.8
CU7237/0.1	Fellows Lake near Dam	1992	9	16		0.01	4.4
CU7237/0.1	Fellows Lake near Dam	1992	9	30		0.023	3.6
CU7237/0.1	Fellows Lake near Dam	1992	10	6		0.014	3.8
CU7237/0.1	Fellows Lake near Dam	1992	10	13		0.016	3.2
CU7237/0.1	Fellows Lake near Dam	1992	10	26		0.019	3
CU7237/0.1	Fellows Lake near Dam	1992	11	10		0.019	1.8
CU7237/0.1	Fellows Lake near Dam	1992	11	17		0.02	1.9
CU7237/0.1	Fellows Lake near Dam	1992	12	1		0.034	1.6
CU7237/0.1	Fellows Lake near Dam	1992	12	8		0.024	2
CU7237/0.1	Fellows Lake near Dam	1992	6	17	0.33	0.014	2.5
CU7237/0.1	Fellows Lake near Dam	1992	7	15	0.35	0.014	2.7
CU7237/0.1	Fellows Lake near Dam	1992	8	11	0.36	0.015	2.5
CU7237/0.1	Fellows Lake near Dam	1993	1	26		0.024	1.9
CU7237/0.1	Fellows Lake near Dam	1993	2	22		0.019	2.9
CU7237/0.1	Fellows Lake near Dam	1993	3	9		0.02	2.9
CU7237/0.1	Fellows Lake near Dam	1993	3	23		0.015	2.7
CU7237/0.1	Fellows Lake near Dam	1993	4	5		0.021	2.8
CU7237/0.1	Fellows Lake near Dam	1993	4	27		0.024	3.1
CU7237/0.1	Fellows Lake near Dam	1993	5	10		0.015	2.5
CU7237/0.1	Fellows Lake near Dam	1993	5	25		0.016	4.2
CU7237/0.1	Fellows Lake near Dam	1993	6	9		0.016	3.8
CU7237/0.1	Fellows Lake near Dam	1993	6	23		0.014	4.8
CU7237/0.1	Fellows Lake near Dam	1993	7	6		0.021	3.5
CU7237/0.1	Fellows Lake near Dam	1993	7	21		0.015	3
CU7237/0.1	Fellows Lake near Dam	1993	8	3		0.01	3.4
CU7237/0.1	Fellows Lake near Dam	1993	7	27		0.014	2.7
CU7237/0.1	Fellows Lake near Dam	1993	8	10		0	2.9
CU7237/0.1	Fellows Lake near Dam	1993	8	17		0.01	3.4
CU7237/0.1	Fellows Lake near Dam	1993	8	24		0.019	2.9
CU7237/0.1	Fellows Lake near Dam	1993	8	24		0	2.9
CU7237/0.1	Fellows Lake near Dam	1993	8	31		0.014	3
CU7237/0.1	Fellows Lake near Dam	1993	9	14		0.014	3
CU7237/0.1	Fellows Lake near Dam	1993	9	21		0.008	3
CU7237/0.1	Fellows Lake near Dam	1993	9	28		0.049	1.3
CU7237/0.1	Fellows Lake near Dam	1993	10	5		0.034	2
CU7237/0.1	Fellows Lake near Dam	1993	10	20		0.028	2.7
CU7237/0.1	Fellows Lake near Dam	1993	10	25		0	2.7
CU7237/0.1	Fellows Lake near Dam	1993	11	1		0.018	2.2
CU7237/0.1	Fellows Lake near Dam	1993	11	15		0.023	2.2
CU7237/0.1	Fellows Lake near Dam	1993	12	6		0.019	2.7
CU7237/0.1	Fellows Lake near Dam	1993	6	16	0.29	0.013	4.5
CU7237/0.1	Fellows Lake near Dam	1993	7	13	0.43	0.013	2.4
CU7237/0.1	Fellows Lake near Dam	1993	8	10	0.37	0.015	2.4
CU7237/0.1	Fellows Lake near Dam	1994	1	25		0.016	4.5
CU7237/0.1	Fellows Lake near Dam	1994	2	8		0.015	3.9
CU7237/0.1	Fellows Lake near Dam	1994	3	15		0.015	3.4
CU7237/0.1	Fellows Lake near Dam	1994	4	4		0.018	4.3

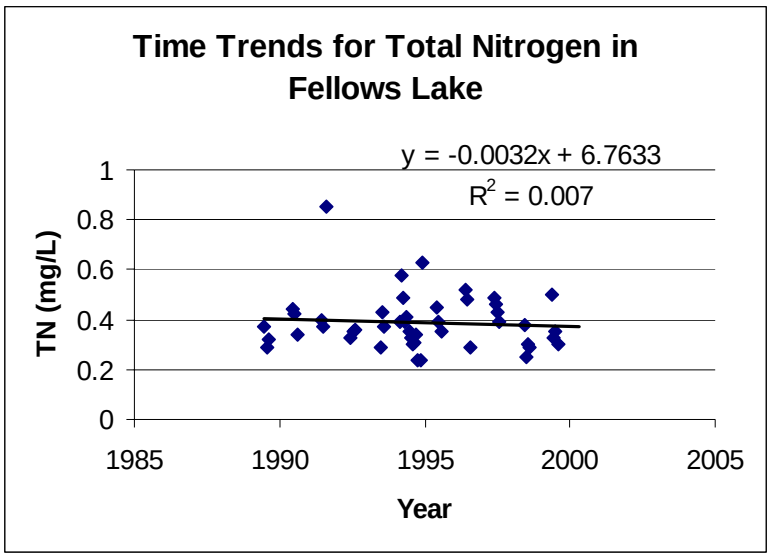
CU7237/0.1	Fellows Lake near Dam	1994	4	26		0.026	2.5
CU7237/0.1	Fellows Lake near Dam	1994	5	10		0.024	3.2
CU7237/0.1	Fellows Lake near Dam	1994	5	31		0.011	4
CU7237/0.1	Fellows Lake near Dam	1994	6	21		0.01	3.5
CU7237/0.1	Fellows Lake near Dam	1994	6	28		0	2.5
CU7237/0.1	Fellows Lake near Dam	1994	7	5		0.016	3.4
CU7237/0.1	Fellows Lake near Dam	1994	7	26		0.018	2.4
CU7237/0.1	Fellows Lake near Dam	1994	8	16		0.008	2.9
CU7237/0.1	Fellows Lake near Dam	1994	8	30		0.015	3.6
CU7237/0.1	Fellows Lake near Dam	1994	9	19		0.02	3.3
CU7237/0.1	Fellows Lake near Dam	1994	10	12		0.008	3.5
CU7237/0.1	Fellows Lake near Dam	1994	10	24		0.018	3.3
CU7237/0.1	Fellows Lake near Dam	1994	11	14		0.028	2.4
CU7237/0.1	Fellows Lake near Dam	1994	12	13		0.023	1.9
CU7237/0.1	Fellows Lake near Dam	1994	2	21	0.39	0.012	3.2
CU7237/0.1	Fellows Lake near Dam	1994	3	9	0.58	0.012	2.6
CU7237/0.1	Fellows Lake near Dam	1994	4	4	0.49	0.008	2.5
CU7237/0.1	Fellows Lake near Dam	1994	4	25	0.39	0.022	1.7
CU7237/0.1	Fellows Lake near Dam	1994	5	17	0.41	0.016	3
CU7237/0.1	Fellows Lake near Dam	1994	6	14	0.35	0.014	2.6
CU7237/0.1	Fellows Lake near Dam	1994	7	12	0.33	0.012	2.5
CU7237/0.1	Fellows Lake near Dam	1994	8	8	0.3	0.013	2.6
CU7237/0.1	Fellows Lake near Dam	1994	8	29	0.31	0.013	2.2
CU7237/0.1	Fellows Lake near Dam	1994	9	19	0.34	0.012	2.6
CU7237/0.1	Fellows Lake near Dam	1994	10	10	0.24	0.014	2.5
CU7237/0.1	Fellows Lake near Dam	1994	10	31	0.24	0.012	2
CU7237/0.1	Fellows Lake near Dam	1994	12	5	0.63	0.018	1.5
CU7237/0.1	Fellows Lake near Dam	1995	1	17		0.023	2
CU7237/0.1	Fellows Lake near Dam	1995	2	22		0.018	2.1
CU7237/0.1	Fellows Lake near Dam	1995	3	21		0.018	2.4
CU7237/0.1	Fellows Lake near Dam	1995	4	26		0.018	2.5
CU7237/0.1	Fellows Lake near Dam	1995	5	17		0.018	3.6
CU7237/0.1	Fellows Lake near Dam	1995	6	6		0.02	2.9
CU7237/0.1	Fellows Lake near Dam	1995	6	19		0.02	3.1
CU7237/0.1	Fellows Lake near Dam	1995	8	9		0.032	3.3
CU7237/0.1	Fellows Lake near Dam	1995	8	23		0.016	3.3
CU7237/0.1	Fellows Lake near Dam	1995	8	29		0.026	3.8
CU7237/0.1	Fellows Lake near Dam	1995	9	6		0.016	3.4
CU7237/0.1	Fellows Lake near Dam	1995	9	12		0.007	3.7
CU7237/0.1	Fellows Lake near Dam	1995	9	19		0.02	3.3
CU7237/0.1	Fellows Lake near Dam	1995	9	25		0.014	3.5
CU7237/0.1	Fellows Lake near Dam	1995	10	17		0.015	2.5
CU7237/0.1	Fellows Lake near Dam	1995	11	1		0.023	2.1
CU7237/0.1	Fellows Lake near Dam	1995	11	17		0.012	1.4
CU7237/0.1	Fellows Lake near Dam	1995	12	4		0.021	2.2
CU7237/0.1	Fellows Lake near Dam	1995	6	1	0.45	0.021	3
CU7237/0.1	Fellows Lake near Dam	1995	6	28	0.39	0.022	1.9
CU7237/0.1	Fellows Lake near Dam	1995	8	2	0.35	0.022	3.3

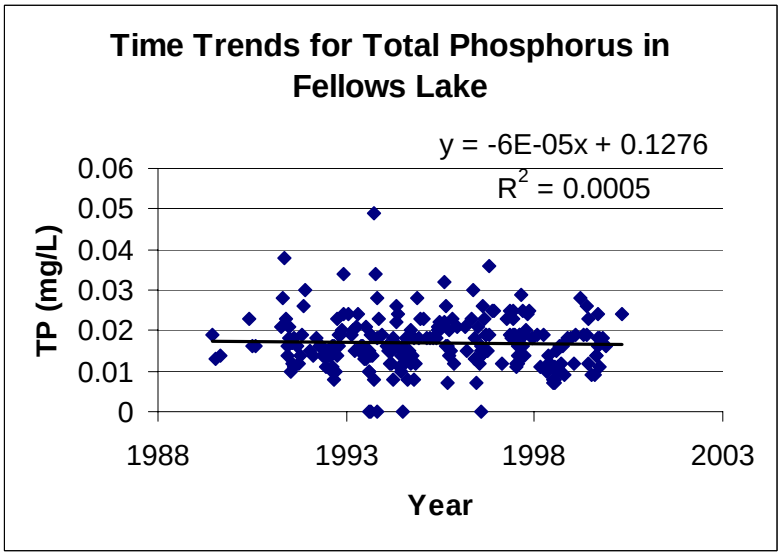
CU7237/0.1	Fellows Lake near Dam	1996	2	20		0.021	2.4
CU7237/0.1	Fellows Lake near Dam	1996	3	13		0.015	2.2
CU7237/0.1	Fellows Lake near Dam	1996	4	23		0.023	1.8
CU7237/0.1	Fellows Lake near Dam	1996	5	13		0.03	1.4
CU7237/0.1	Fellows Lake near Dam	1996	5	28		0.018	3.9
CU7237/0.1	Fellows Lake near Dam	1996	6	18		0.007	4.5
CU7237/0.1	Fellows Lake near Dam	1996	7	2		0.021	3.4
CU7237/0.1	Fellows Lake near Dam	1996	7	16		0.012	3.4
CU7237/0.1	Fellows Lake near Dam	1996	7	23		0	3.1
CU7237/0.1	Fellows Lake near Dam	1996	7	23		0.014	3.1
CU7237/0.1	Fellows Lake near Dam	1996	7	30		0.016	3.1
CU7237/0.1	Fellows Lake near Dam	1996	8	6		0.014	2.8
CU7237/0.1	Fellows Lake near Dam	1996	8	13		0.026	3
CU7237/0.1	Fellows Lake near Dam	1996	9	3		0.023	3.5
CU7237/0.1	Fellows Lake near Dam	1996	9	17		0.019	3
CU7237/0.1	Fellows Lake near Dam	1996	9	23		0.019	2.9
CU7237/0.1	Fellows Lake near Dam	1996	9	30		0.015	2.7
CU7237/0.1	Fellows Lake near Dam	1996	10	15		0.019	3.2
CU7237/0.1	Fellows Lake near Dam	1996	10	23		0.036	1.8
CU7237/0.1	Fellows Lake near Dam	1996	11	19		0.025	1.8
CU7237/0.1	Fellows Lake near Dam	1996	12	2		0.025	2
CU7237/0.1	Fellows Lake near Dam	1996	5	29	0.52	0.013	2
CU7237/0.1	Fellows Lake near Dam	1996	6	25	0.48	0.013	2.1
CU7237/0.1	Fellows Lake near Dam	1996	7	31	0.29	0.015	2.4
CU7237/0.1	Fellows Lake near Dam	1997	2	18		0.012	3.3
CU7237/0.1	Fellows Lake near Dam	1997	4	8		0.023	1.7
CU7237/0.1	Fellows Lake near Dam	1997	4	29		0.019	2.5
CU7237/0.1	Fellows Lake near Dam	1997	5	13		0.025	2.8
CU7237/0.1	Fellows Lake near Dam	1997	6	3		0.025	2.6
CU7237/0.1	Fellows Lake near Dam	1997	6	10		0.023	2.4
CU7237/0.1	Fellows Lake near Dam	1997	6	17		0.019	2.4
CU7237/0.1	Fellows Lake near Dam	1997	7	1		0.012	3.8
CU7237/0.1	Fellows Lake near Dam	1997	7	15		0.016	2.4
CU7237/0.1	Fellows Lake near Dam	1997	7	28		0.014	3.2
CU7237/0.1	Fellows Lake near Dam	1997	8	5		0.019	2.7
CU7237/0.1	Fellows Lake near Dam	1997	8	12		0.019	2.2
CU7237/0.1	Fellows Lake near Dam	1997	8	19		0.029	2.6
CU7237/0.1	Fellows Lake near Dam	1997	9	2		0.016	2.3
CU7237/0.1	Fellows Lake near Dam	1997	9	9		0.025	1.9
CU7237/0.1	Fellows Lake near Dam	1997	9	16		0.014	2.2
CU7237/0.1	Fellows Lake near Dam	1997	9	30		0.019	2.3
CU7237/0.1	Fellows Lake near Dam	1997	10	7		0.02	2.5
CU7237/0.1	Fellows Lake near Dam	1997	10	28		0.024	1.4
CU7237/0.1	Fellows Lake near Dam	1997	11	4		0.025	1.3
CU7237/0.1	Fellows Lake near Dam	1997	12	9		0.018	2.3
CU7237/0.1	Fellows Lake near Dam	1997	5	21	0.49	0.018	1.9
CU7237/0.1	Fellows Lake near Dam	1997	6	10	0.46	0.019	1.7
CU7237/0.1	Fellows Lake near Dam	1997	7	1	0.43	0.011	2.7

CU7237/0.1	Fellows Lake near Dam	1997	7	29	0.39	0.012	2.1
CU7237/0.1	Fellows Lake near Dam	1998	1	27		0.019	3.7
CU7237/0.1	Fellows Lake near Dam	1998	2	24		0.011	2.6
CU7237/0.1	Fellows Lake near Dam	1998	3	24		0.019	1.4
CU7237/0.1	Fellows Lake near Dam	1998	4	21		0.01	3.4
CU7237/0.1	Fellows Lake near Dam	1998	5	5		0.012	6.4
CU7237/0.1	Fellows Lake near Dam	1998	5	18		0.014	7.1
CU7237/0.1	Fellows Lake near Dam	1998	6	10		0.011	5.9
CU7237/0.1	Fellows Lake near Dam	1998	6	23		0.007	6.5
CU7237/0.1	Fellows Lake near Dam	1998	7	7		0.008	5.6
CU7237/0.1	Fellows Lake near Dam	1998	7	21		0.011	4.5
CU7237/0.1	Fellows Lake near Dam	1998	8	4		0.015	3.7
CU7237/0.1	Fellows Lake near Dam	1998	8	18		0.011	3.6
CU7237/0.1	Fellows Lake near Dam	1998	8	25		0.016	3.5
CU7237/0.1	Fellows Lake near Dam	1998	9	8		0.012	2.9
CU7237/0.1	Fellows Lake near Dam	1998	9	22		0.016	4.4
CU7237/0.1	Fellows Lake near Dam	1998	9	29		0.016	4.2
CU7237/0.1	Fellows Lake near Dam	1998	10	20		0.009	3.5
CU7237/0.1	Fellows Lake near Dam	1998	11	17		0.018	2.3
CU7237/0.1	Fellows Lake near Dam	1998	12	15		0.018	2.6
CU7237/0.1	Fellows Lake near Dam	1998	6	2	0.38	0.012	3.55
CU7237/0.1	Fellows Lake near Dam	1998	6	30	0.25	0.008	3.75
CU7237/0.1	Fellows Lake near Dam	1998	7	21	0.3	0.007	3.68
CU7237/0.1	Fellows Lake near Dam	1998	8	11	0.29	0.01	2.58
CU7237/0.1	Fellows Lake near Dam	1999	5	18	0.5	0.019	3
CU7237/0.1	Fellows Lake near Dam	1999	1	20		0.012	3.4
CU7237/0.1	Fellows Lake near Dam	1999	2	9		0.019	1.9
CU7237/0.1	Fellows Lake near Dam	1999	3	24		0.028	5
CU7237/0.1	Fellows Lake near Dam	1999	4	20		0.019	2.9
CU7237/0.1	Fellows Lake near Dam	1999	5	18		0.026	3.6
CU7237/0.1	Fellows Lake near Dam	1999	6	1		0.023	4.4
CU7237/0.1	Fellows Lake near Dam	1999	8	17		0.014	4.5
CU7237/0.1	Fellows Lake near Dam	1999	8	24		0.014	3.2
CU7237/0.1	Fellows Lake near Dam	1999	8	31		0.018	3.5
CU7237/0.1	Fellows Lake near Dam	1999	9	7		0.024	3
CU7237/0.1	Fellows Lake near Dam	1999	9	14		0.016	3.1
CU7237/0.1	Fellows Lake near Dam	1999	9	21		0.018	3.2
CU7237/0.1	Fellows Lake near Dam	1999	9	28		0.011	4.1
CU7237/0.1	Fellows Lake near Dam	1999	10	19		0.018	2.9
CU7237/0.1	Fellows Lake near Dam	1999	11	16		0.016	2.9
CU7237/0.1	Fellows Lake near Dam	1999	6	8	0.33	0.012	3.75
CU7237/0.1	Fellows Lake near Dam	1999	6	29	0.35	0.009	2.8
CU7237/0.1	Fellows Lake near Dam	1999	8	3	0.3	0.009	2.75
CU7237/0.1	Fellows Lake near Dam	2000	4	25		0.024	3.3
CU7237/0.1	Fellows Lake near Dam	2000	5			0.02	
CU7237/0.1	Fellows Lake near Dam	2000	6			0.033	
CU7237/0.1	Fellows Lake near Dam	2000	7			0.023	
CU7237/0.1	Fellows Lake near Dam	2000	8			0.011	

CU7237/0.1	Fellows Lake near Dam	2000	10			0.023	
CU7237/0.1	Fellows Lake near Dam	2000	11			0.006	
CU7237/0.1	Fellows Lake near Dam	2000	12			0.014	
CU7237/0.1	Fellows Lake near Dam	2001	1			0.009	
CU7237/0.1	Fellows Lake near Dam	2001	2			0.014	
CU7237/0.1	Fellows Lake near Dam	2001	3			0.019	
CU7237/0.1	Fellows Lake near Dam	2001	4			0.016	
CU7237/0.1	Fellows Lake near Dam	2001	5			0.015	3.5
CU7237/0.1	Fellows Lake near Dam	2001	6			0.011	
CU7237/0.1	Fellows Lake near Dam	2001	7			0.012	3
CU7237/0.1	Fellows Lake near Dam	2001	8			0.011	
CU7237/0.1	Fellows Lake near Dam	2001	9			0.018	2.4

Graphs showing nitrogen and phosphorus trends in Fellows Lake





Note: Data shows very slight declines in nitrogen and phosphorus over time. City Utilities, the water supplier for Springfield, has reported that there has been only one taste and odor episode on Fellows Lake in the past 20 years.

Recommendation: Remove Fellows Lake from the 303(d) list.